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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/644,116

08/20/2003

Jeffrey Blackwood

03-0515

6516

24319

7590

11/06/2006

LSI LOGIC CORPORATION

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MS: D-106

MILPITAS, CA 95035

EXAMINER

MARIAM, DANIEL G

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,116

Applicant(s)

BLACKWOOD ET AL.

Examiner

DANIEL G. MARIAM

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Esrig, et al (hereinafter "Esrig") (4,755,874).

With regard to claim 6, Esrig discloses a system for collecting and arranging photoemission data relating to a plurality of die on a wafer, i.e., integrated circuit device under test (DUT) (See for example, Fig. 2), said system comprising: a camera (See for example, items 13 or 21, in Fig.2) configured to acquire illumination and photoemission images of the die; a processor/controller, i.e., image computer, in communication with the camera, said processor/controller configured to operate the camera to acquire illumination and photoemission images for the die, and configured to overlay, align, i.e., adjust\$5 or noise elimination,, and assemble the images into a mosaic, i.e., composed image (See for example, col. 4, line 42 through col. 5, line 21; and Figs. 2 & 13).

With regard to claim 7, a system as recited in claim 6, wherein the processor/controller is configured to analyze, i.e., inspect or test, the mosaic (col. 5, lines 5-21; col. 6, lines 58-68).

With regard to claim 8, a system as recited in claim 6, wherein the processor/controller is configured to move the camera to acquire the images relating to the plurality of die (col. 4, lines 8-12, and lines 45-54).

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With regard to claim 9, a system as recited in claim 6, wherein the processor/controller is configured to move the wafer (the DUT is moved by the movement of the stage in X, Y & Z directions, to acquire the images relating to the plurality of die (See for example, Fig. 2; and col. 4, lines 8-12, and lines 45-54).

With regard to claim 10, a system as recited in claim 6, wherein the processor/controller is configured to move the camera and wafer to acquire the images relating to the plurality of die (See for example, col. 4, lines 8-12, and lines 45-54).

Claims 1, 2, 3, 4, and 5 are rejected the same as claims 6, 7, 8, 9, and 10 respectively, except claims 1, 2, 3, 4, and 5 are directed to method claims. Thus, arguments analogous to those presented above for claims 6, 7, 8, 9, and 10 are respectively applicable to claims 1, 2, 3, 4, and 5.

Conclusion


3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 4680635, 5970167 and 6716683; and a publication to Trigg "The infrared photoemission microscope as a tool for semiconductor device failure analysis"; and Khiam, et al "A new fluorescent and photoemission microscope for submicron VLSI IC failure analysis".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DANIEL G MARIAM
Primary Examiner
Art Unit 2624

November 1, 2006